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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/780,405	02/12/2001	Jason J. Gosior	322-2	8500

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EXAMINER

SEFCHECK, GREGORY B

ART UNIT PAPER NUMBER

2662

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/780,405

Applicant(s)

GOSIOR ET AL.

Examiner

Gregory B. Sefcheck

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) 29-49 and 57-61 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28, 50-56, and 62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/12/01 & 6/3/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Applicant's Response to Restriction filed 11/16/2004 is acknowledged.
- Claims 1-28, 50-56, and 62 have been elected.
- Claims 29-49 and 57-61 have been withdrawn. Applicant is reminded that claims 29-49 and 57-61 should be expressly cancelled in response to this Office Action.

Claim Objections

1. Claims 50 and 54 are objected to because of the following informalities:

The limitations of claims 50 and 54 are inconsistent. Independent claim 50 states that each of plural base transceivers have at least one associated peripheral transceiver. However, claim 54, which is dependent from claim 50, states that each base transceiver transmits a polling volley to plural peripherals.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, and 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Messenger (USP 5,046,066).

- In regards to Claims 1 and 2,

Messenger discloses a wireless local area network (Title; claim 1 – RF system).

Messenger discloses the network including a base station that includes a transaction processor 32 connected to an RF transceiver section and a host computer (Fig. 3; Abstract; claim 1 – processor connected to a RF section; claim 1 – I/O subsystem connected to the processor; claim 2 – I/O subsystem/first base transceiver is connected to a host selected from the group consisting of video game console, set top box, consumer electronic device, computer, data networking equipment).

Messenger shows that the base station controls the transmission of data between the base station and its associated local stations based on transmitting and receiving of data packets containing synchronization codes (Abstract; claim 1 – processor configured to control transmission of sync signals from the RF section in response to receiving sync signals from another RF system).

- In regards to Claim 4,

Messenger discloses a wireless local area network that covers all limitations of the parent claim.

Messenger shows that the base station periodically polls each local station to initiate transmission (Abstract; Col. 2, lines 65-67; Col. 4, lines 18-28; claim 4 – first base/processor configured to cause the RF section to transmit polling volleys in a time division manner)

- In regards to Claims 5 and 6,

Messenger discloses a wireless local area network that covers all limitations of the parent claim.

Messenger shows that the base station initiates communication by transmitting to its local stations, including a sync code for proper demodulation. The base station then listens for responsive transmissions from the local stations, which also include a sync code (Col. 2-4, lines 65-28; claim 5,18 – processor configured to cause the RF section to transmit a sync signal in a sync slot associated with a polling volley; claim 6,19 – processor configured to cause RF section to transmit a sync signal in association with a first polling volley and listen for sync signals from other RF systems in association with a subsequent polling volley).

- In regards to Claims 7-9,

Messenger discloses a wireless local area network that covers all limitations of the parent claim.

Messenger shows that subsequent transmissions from the base station proceed after delaying a predetermined period of time for receiving responses to the initial polling transmission from the local stations (Col. 5-6, lines 58-22; claim 7,20 – processor configured to cause RF section to delay sending a sync signal when a sync signal is received from another RF system; claim 8 - processor configured to cause RF section to advance the sending of a sync signal when a sync signal is no longer received from

another RF system; claim 9 - processor configured to receive responses from peripherals transceiver in time slots associated with each polling volley, in which each peripheral transceiver is assigned a specific slot).

4. Claims 11-15, 17-28, 50-54, 56, and 62 are rejected under 35 U.S.C. 102(b) as being anticipated by Mahany (USP 5,696,903A).

- In regards to Claims 11, 13, 15, 17-20, 50, 51, 53, and 62,

Mahany discloses a method of operating a hierarchical communications system (Title). Similar to the system of Messenger described above, Mahany discloses a base transceiver connected to a host computer and a plurality of peripherals.

Transmissions are controlled by exchanging synchronization information between the base station and its peripherals (Fig. 1C; Abstract; Col. 12, lines 32-41; Col. 13, lines 4-15; claim 11,50,62 – method for exchanging sync information between plural transceivers on common frequency assignment; claim 50 – at least one peripheral associated with each base; claim 11,62 – tx and rx signals including sync signals from a first base transceiver; claim 15 – I/O subsystem/first base transceiver is connected to a host selected from the group consisting of video game console, set top box, consumer electronic device, computer, data networking equipment).

Referring to Fig. 12, Mahany shows that synchronization between multiple base stations may also be similarly performed (claim 11,51,62 – controlling tx of sync signals from the first base in response to receiving sync signals from another base).

Mahany shows that sync signals are sent from a base transceiver to its peripherals within a polling process for controlling transmission (Col. 12, lines 32-41; Col. 13, lines 4-15; claim 13,53,62 – transmitting a sync signal from the first base in a time slot associated with a selected polling volley).

Mahany shows that multiple base stations communicate SYNC information among themselves (Col. 29, lines 40-47; claim 13,53,62 – in association with a succeeding polling volley to the selected polling volley, the first base delaying sending a sync signal to permit another base to send a sync signal; claim 13,50,53,62 – first base listening for a sync signal from another base; claim 17 – first base to transmit polling volleys in a time division manner; claim 18 – first base to transmit a sync signal in a sync slot associated with a polling volley; claim 19,50,62 – first base to transmit a sync signal in association with a first polling volley and listen for sync signals from another base in association with a subsequent polling volley; claim 20 – first base to delay sending a sync signal when a sync signal is received from another base).

Mahany shows that the base stations may communicate the hopping sequences being used for communication with their respective peripherals, such that the time and frequency assignments of their respective polling processes can be adjusted properly (Col. 29-30, lines 52-15; claim 13,50,53,62 – adjusting the start time of polling volleys used by the first base upon receipt of a sync signal from another base).

- In regards to Claims 12, 14, 26, 27, 52,

Mahany discloses a method of operating a hierarchical communications system that covers all limitations of the parent claim.

Mahany further discloses controlling transmission between a first base station and its peripherals through a polling process over a first frequency hopping sequence while a second base station controls transmissions of its peripherals through polling over a different frequency hopping sequence (Col. 12, lines 36-48; claim 12,52 – transmitting signals from the first transceiver to a first peripheral in successive polling volleys on a first series of frequencies selected from a set of frequencies; claim 14 – transmitting signals from a second base to a second peripheral in association with the successive polling volleys on a second series of frequencies; claim 14 – first and second series of frequencies do not clash; claim 26 – first set of frequencies follows a hopping pattern; claim 27 – first and second sets of frequencies follow a hopping pattern).

- In regards to Claim 21,

Mahany discloses a method of operating a hierarchical communications system that covers all limitations of the parent claims.

Referring to Figs. 1C, 12-14, 28a-b, and 29, Mahany shows that base stations can be hard-wired as well as wirelessly coupled and that multiple base stations may be collocated (claim 21 – first and second base stations are collocated).

Mahany further shows that different base stations may be synchronized so as to have the frequency hopping sequences start at the same time (Col. 12, lines 45-50; claim 21 – first and second bases are synchronized to start a polling volley at the same time).

- In regards to Claims 22-25,

Mahany discloses a method of operating a hierarchical communications system that covers all limitations of the parent claim.

Referring to Fig. 2, Mahany shows that the sync signal is transmitted within a frame structure for carrying data to other base stations and/or peripherals (Col. 15, lines 28-38; claim 22 – sync signals are transmitted as part of packets carrying data to other bases).

Mahany shows that these packet communications may contain information regarding other base stations and/or peripherals, including hopping sequence information (Fig. 2, Col. 29-30, lines 38-65; claim 23 – packets contain hop sequence information; claim 24 – packets contain peripheral state information; claim 25 – packets contain inter-base messages).

- In regards to Claim 28,

Mahany discloses a method of operating a hierarchical communications system that covers all limitations of the parent claims.

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Mahany shows that transceivers of a certain type may be used which are powered up and monitoring the network through the exchange of messages at all times (Col. 17, lines 65-66; claim 28 – first base begins transmitting upon power up with a random delay to avoid clashing with another base).

- In regards to Claims 54 and 56,

Mahany discloses a method of operating a hierarchical communications system that covers all limitations of the parent claim.

Mahany shows that the polling process of each base transceiver transmits data addressed to several peripherals to which the peripherals respond (Fig. 2, 6b; Col. 17, lines 25-58; claim 54 – transmitting a polling volley from each base to plural peripherals containing sequential packets addressed to the plural peripherals; claim 54 – peripherals responding in order to the polling volley).

Mahany shows that several devices contending for channel access cooperate with each other and the base station through a RFP response to gain access to the channel (Col. 17, lines 34-40; claim 56 – peripheral transceivers cooperate with each other).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Messenger in view of Rutkowski (US005806849A).

- In regards to Claim 3,

Messenger discloses a wireless local area network that covers all limitations of the parent claim.

Messenger does not explicitly show the host to be a video game console.

Rutkowski discloses an electronic game system with wireless controller.

Referring to Fig. 1, Rutkowski shows a controller interface (base station) of a game console wirelessly connected to several controllers (peripherals; claim 3 – host is a video game console).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the system of Messenger for specifically communicating between a game console and game controllers over wireless connections with a console base transceiver, as shown by Rutkowski. This would enable interactive use of the game console using several game controllers separated by large distances.

6. Claims 16 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahany in view of Rutkowski.

- In regards to Claims 16 and 55,

Mahany discloses a method of operating a hierarchical communications system that covers all limitations of the parent claims.

Mahany does not explicitly show the host to be a video game console associated with the base transceivers communicating with game controller peripherals.

Rutkowski discloses an electronic game system with wireless controller. Referring to Fig. 1, Rutkowski shows a controller interface (base station) of a game console wirelessly connected to several controllers (peripherals; claim 16 – host is a video game console; claim 55 – peripherals are game controllers communicating with base associated with game console).

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the method of Mahany for specifically communicating between a game console and game controllers over wireless connections with a console base transceiver, as shown by Rutkowski. This would enable interactive use of the game console using several game controllers separated by large distances.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Messenger in view of Mahany (US005862171A), hereafter Mahany 171.

- In regards to Claim 10,

Messenger discloses a wireless local area network that covers all limitations of the parent claim.

Messenger does not explicitly show a visual indicator connected to the processor for indicating a change in assignment of a time slot for a peripheral transceiver.

Mahany 171 discloses an RF communication network. Referring to Fig. 3, Mahany shows a network controller 40 connected to a host computer 42 and multiple base transceivers 52. Mahany further discloses that the base transceivers 52 may have associated mobile transceivers. The controller, shown in Fig. 2, includes a display 24 for indicating when operating parameters of the network are adjusted, such as frequency hopping spread spectrum parameters of the channels used for communication (Col. 17, lines 1-25; claim 10 – a visual indicator connected to the processor for indicating a change in assignment of a time slot for a peripheral transceiver).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Messenger by including a visual indicator for displaying changes or adjustments made to the channel assignments of the system, as shown by Mahany 171, thereby ensuring that adjustments made to the operating parameters of the system are tracked and identified such that subsequent communication can be performed properly.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Beasley et al. (US 20020177460A1) discloses a wireless base station to base station synchronization in a communication system, such as a system employing a short range frequency hopping or time division duplex scheme
- Gosior et al. (US006684062B1) discloses a wireless game control system
- Palmer et al. (US006295461B1) discloses a multi-mode radio frequency network system
- Sasaki et al. (US005561419A) discloses a wireless communication apparatus and game machine using the same
- Heiman et al. (US005528621A) discloses a packet data communication system
- Boetzkes (US004533871) discloses a range-enable information system for plural mobile objects

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B. Sefcheck whose telephone number is 571-272-3098. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GBS
5-12-2005



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